CENTER FOR EDUCATION STATISTICS

Targeted Forecast   April 1988

Next 5 Years: Higher Education Enrollment Fluctuates

1988 Higher Education Enrollment

Contact:
Debra E. Gerald
(202) 357-6581

The Center for Education Statistics (CES) projects that total enrollment in institutions of higher education this fall (1988) will be up slightly from the 1987 level.

Although fewer full-time students are projected for this fall, the Center forecasts an increase in the number of part-time students over the previous year.

Enrollments at 4-year institutions and at public colleges are projected to increase slightly over their 1987 levels.

5-year Outlook

Over the next 5 years (1988 through 1992), CES projects that total enrollment in the Nation's colleges and universities will decrease from 12.6 million to 12.4 million.

Enrollment at 2-year institutions and at public colleges will rise until 1990 and then decline by 1992.

The number of full-time students will drop from 7.2 million to 6.9 million over this period. In contrast, the number of part-time students will grow from 5.4 million to 5.5 million in 1992.

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Undergraduate enrollment will decline from 10.9 million in 1988 to 10.8 million in 1992. Graduate enrollment will remain around 1.4 million, while first-professional enrollment will decrease from 278,000 to 274,000.

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Forecast

Table 1.--Higher education enrollment, by institutional characteristics, with forecasts:
Fall 1986 to 1992

(In thousands)

Status of data	Year	Total	Type of institution		Control of institution	
			4-year	2-year	Public	Private
Estimate	1986	12,398	7,754	4,644	9,600	2,797
	1987	12,544	7,816	4,728	9,706	2,838
Forecast	1988	12,560	7,881	4,679	9,760	2,800
	1989	12,570	7,857	4,713	9,764	2,806
	1990	12,585	7,862	4,723	9,777	2,808
	1991	12,529	7,831	4,698	9,735	2,794
	1992	12,408	7,756	4,652	9,639	2,769

NOTE 1.--These forecasts were prepared November 1987.

NOTE 2.--Because of rounding, details may not add to totals.

Table 2.--Higher education enrollment, by student characteristics, with forecasts: Fall 1986 to 1992

(In thousands)

Status of Data	Year	Total	Sex of student		Attendance status		Level of enrollment		
			Men	Women	Full-time	Part-time	Under-grad-uate	Grad-uate	First-profes-sional
Estimate	1986	12,398	5,840	6,557	7,148	5,249	10,724	1,392	282
	1987	12,544	5,881	6,663	7,219	5,325	10,895	1,377	273
Forecast	1988	12,560	5,880	6,680	7,157	5,403	10,919	1,363	278
	1989	12,570	5,890	6,680	7,116	5,454	10,926	1,368	276
	1990	12,585	5,905	6,680	7,095	5,490	10,937	1,372	276
	1991	12,529	5,884	6,645	7,013	5,516	10,875	1,378	276
	1992	12,408	5,845	6,563	6,916	5,492	10,757	1,377	274

NOTE 1.--These forecasts were prepared November 1987.

Note 2.--Because of rounding, details may not add to totals.

Technical Notes

Methodology

Projections of enrollments in institutions of higher education were developed by means of the CES Interactive Forecasting Model (IFMOD), an age-specific enrollment rate model. For each age or age group, by sex and attendance status, enrollment rates were calculated and projected into the future. For these projections, the enrollment rates of younger age cohorts (18- through 21-year-olds) were projected to increase slightly, while those for the other ages or age groups were held constant at levels consistent with the most recent rates. These projected enrollment rates were then applied to age-specific population projections from the Bureau of the Census. Single exponential smoothing and multiple linear regression were the two major projection techniques used. For regression analysis, demographic and economic variables were considered as independent variables. Studies that have examined the effects of economic factors on college enrollment indicate that college costs and student aid appear to be important factors influencing college enrollment. These factors, among others, will be considered in future modeling enhancements.

These forecasts were calculated before the CES early estimates for 1987 were available.

Percentage changes were calculated using unrounded numbers.

For further details on the methods to develop these forecasts and an explanation of IFMOD, see *Projections of Education Statistics to 1997-98*, forthcoming.

Forecast Accuracy

The mean absolute percentage error (MAPE) was used to measure forecast accuracy. The MAPEs (based on five editions of *Projections*) between the reported total enrollment and CES projections of total enrollment in institutions of higher education were 0.4 percent for 1 year ahead, 2.3 percent for 2 years ahead, and 5.0 percent for 4 years ahead. For the 2-year-ahead prediction, this means that one would expect the forecast to be within 2.3 percent of the actual value.

Sources of Data

The enrollment figures used in these forecasts were obtained from the Fall Enrollment In Colleges and Universities survey of the Higher Education General Information Survey (HEGIS) conducted by the U.S. Department of Education, Center for Education Statistics. Population estimates and projections were obtained from *Current Population Reports* (Series P-25), "Estimates of the Population of the United States" and unpublished tabulations by the U.S. Department of Commerce, Bureau of the Census. Estimates and projections of disposable income and unemployment rates were obtained from Data Resources, Inc.

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For more information about the topics in this bulletin, contact

Debra E. Gerald
Crosscutting Education Statistics and Analysis Division
Center for Education Statistics
555 New Jersey Avenue, NW.
Washington, D.C. 20208-1302
(202) 357-6581

Enrollment in institutions of higher education: Fall 1972 to 1992

(Enrollment, in millions)